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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,400	03/12/2004	Gareth Knowles	QT-2004-10-NP	7332
7590	07/13/2004		EXAMINER	
Michael G. Crilly, Esq. 104 South York Road Hatboro, PA 19040			ELDRED, JOHN W	
			ART UNIT	PAPER NUMBER
			3644	
DATE MAILED: 07/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/799,400

Applicant(s)

KNOWLES ET AL.

Examiner

J. Woodrow Eldred

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3-19-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 7, 11, 12, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarh in view of Baumbick.

Sarh discloses a telescopic wing system with inner and outer wing segments and a linear actuator to extend the outer wing segment from the inner wing segment. See especially Figure 1 and column 2, lines 3-13. Sarh fails to disclose the linear actuator as being a coiled tube of shape memory alloy. Baumbick teaches that it is known to have a coiled tube of shape memory alloy as a linear actuator and to use a vented gas fluid as the temperature activating control. See especially column 3, lines 12-38. Motivation to combine is the mere substitution of known linear actuators, with the attendant advantages of the mechanically simpler shape memory alloy element. To employ the teachings of Baumbick on the wing system of Sarh and have a shape memory alloy actuator is considered to have been obvious to one having ordinary skill in the art.

3. Claims 3-5, 8, 13-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarh and Baumbick as applied to claims 1, 2, 6, 7, 11, 12, 16, and 17 above, and further in view of Villard.

Baumbick fails to show the temperature activating control as being a fluid or to re-circulate the fluid. Villard teaches that it is well known to use either liquid or gas as the temperature activating control of a shape memory alloy and that it is known to either vent or re-circulate the activating fluid. See especially column 12, lines 2-28. Motivation to combine is the clear teaching that either alternative is a viable way to perform the activation function. To employ the teachings of Villard and Baumbick on

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the wing system of Sarh and have a re-circulating liquid is considered to have been obvious to one having ordinary skill in the art.

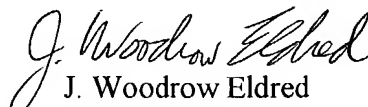
4. Claims 9, 10, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarh and Baumbick as applied to claims 1, 2, 6, 7, 11, 12, 16, and 17 above, and further in view of Schleppenbach et al.

Baumbick fails to show the temperature activating control as being an electric current. Schleppenbach et al teach that it is well known to use electric current as the temperature activating control. Motivation to combine is the mere substitution known activation means to perform the same function. To employ the teachings of Schleppenbach et al and Baumbick on the wing system of Sarh and have electrical temperature activation is considered to have been obvious to one having ordinary skill in the art. Likewise, the combination of electricity and fluid would be an obvious duplication of means in order to increase reliability.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is 703-306-4151. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
J. Woodrow Eldred  
Primary Examiner  
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